

WASHINGTON AGRICULTURAL CHEMICAL USAGE SWEET CORN August 2001



U.S. Department of Agriculture
Washington Agricultural Statistics Service
P.O. Box 609, Olympia, WA 98507

SWEET CORN

Results of the 2000 Vegetable Chemical Use Survey are presented in the following tables. The survey was designed to collect data on chemical applications made from the end of the 1999 harvest through completion of the 2000 harvest from a sampling of vegetable growers in Washington. Targeted crops in Washington included asparagus, processing lima beans, fresh and processing carrots, processing sweet corn, dry onions, processing green peas, and strawberries. The probability nature of the survey allowed for estimates that are representative of chemical use on all targeted vegetables in the state.

Survey results include estimates of total area treated, number of applications, rates per application and per crop year, and total pounds of chemicals applied. Data are summarized for the primary nutrients and for the active ingredients of pesticides and other chemicals applied. Pesticide data were collected for specific formulations of active ingredients (trade name products) and then converted to active ingredient. Therefore, the estimates associated with a particular active ingredient may represent applications of several trade name products. Pesticide

application rates also reflect partial coverage applications as a result of band, spot, and alternate row spraying techniques.

Seven states were surveyed for **processing sweet corn** in 2000: Illinois, Minnesota, New York, Oregon, Pennsylvania, Washington, and Wisconsin. Surveyed acreage totaled 419,800 acres and Washington accounted for 24 percent of total surveyed acreage.

A higher percentage of herbicides were used on processing sweet corn acres. Herbicides were used on 78 percent of the surveyed acres with all of the seven states reporting 90 percent coverage. Atrazine was applied to 63 percent of the acreage, metolachlor was on 28 percent, and bentazon on 23 percent. Nearly three-quarters of the acreage was treated with insecticides as states reported 73 percent of the acres covered. The two predominately used were bifenthrin on 36 percent of the acres and lambda-cyhalothrin on 26 percent. Fungicides were only reported on 22 percent of the acreage. Propiconazole was the main fungicide utilized.

Processing Sweet Corn: Agricultural Chemical Applications, Washington, 1998 & 2000 1/

Agricultural Chemical 2/	Area Applied 3/		Applications		Rate Per Application		Rate Per Crop Year		Total Applied	
	1998	2000	1998	2000	1998	2000	1998	2000	1998	2000
	Percent		Number		Pounds Per Acre				1,000 Pounds	
Herbicides										
2, 4-D	2	3	1.0	1.0	0.58	0.49	0.62	0.49	1.5	1.4
Alachlor	28	20	1.0	1.0	2.60	2.37	2.75	2.52	78.4	52.2
Atrazine	28	47	1.2	1.0	1.00	0.66	1.24	0.70	35.0	33.6
Bentazon	10	5	1.0	1.0	0.84	0.69	0.84	0.70	8.8	3.7
Dimethenamid	15	-	1.0	-	0.79	-	0.79	-	12.3	-
EPTC	-	7	-	1.0	-	3.50	-	3.53	-	24.6
Fluroxypyr	-	8	-	1.0	-	0.15	-	0.15	-	1.2
Glyphosate	14	19	1.1	1.1	0.73	0.53	0.81	0.62	12.0	11.7
Metolachlor	29	29	1.0	1.0	2.10	1.45	2.12	1.47	61.7	43.9
Nicosulfuron	-	3	-	1.0	-	0.04	-	0.04	-	0.1
Pendimethalin	38	32	1.0	1.0	0.65	0.71	0.67	0.73	25.9	23.7
Insecticides										
Chlorpyrifos	9	6	1.2	1.2	1.20	0.66	1.50	0.83	13.9	4.9
Lambda-cyhalothrin	23	-	1.9	-	0.03	-	0.05	-	1.2	-
Permethrin	19	-	3.5	-	0.17	-	0.62	-	11.6	-

1/ Planted acres in 1998 and 2000 for Washington were 101,500 acres and 101,800 acres respectively.

2/ Insufficient reports to publish data for the following agricultural chemicals: 1998: Herbicides: Bromoxynil, Butylate, Cyanazine, EPTC, Nicosulfuron, Trifluralin. Insecticides: Bt (Bacillus thur.), Esfenvalerate, Ethoprop, Tefluthrin. 2000: Herbicides: Cyanazine, Dimethenamid, MCPA, Paraquat, S-Metolachlor, Trifluralin. Insecticides: Azadirachtin, Bifenthrin, Ethoprop, Lambda-cyhalothrin, Permethrin, Spinosad.

3/ Refers to acres receiving one or more applications of a specific agricultural chemical. Note: Data may not multiple across due to rounding.

**PROCESSING SWEET CORN: PESTICIDE APPLICATIONS, TOTAL ACREAGE & PERCENTAGE
RECEIVING APPLICATIONS, MAJOR STATES & TOTAL, 1998 & 2000**

State	Planted Acreage		Area Receiving 1/							
			Herbicides		Insecticides		Fungicides		Other Chemicals	
	1998	2000	1998	2000	1998	2000	1998	2000	1998	2000
	Acres		Percent							
Illinois	14,600	17,400	98	90	98	93	48	57	**	**
Minnesota	131,900	136,900	95	95	85	90	24	31	**	**
New York	42,000	30,700	82	96	81	87	17	36	**	**
Oregon	37,400	35,800	97	96	60	49	-	**	**	**
Pennsylvania	-	2,300	-	13	-	13	-	**	-	**
Washington	101,500	101,800	92	78	55	44	-	**	**	**
Wisconsin	111,600	94,900	97	92	76	83	-	28	**	**
TOTAL	439,000	419,800	94	90	74	73	10	22	4	*

** Insufficient reports to publish percent of area receiving. * Area applied is less than one percent.

1/ Refers to acres receiving one or more applications of a specific pesticide class.

Processing Sweet Corn: Agricultural Chemical Applications, Major States, 1998 & 2000 1/

AGRICULTURAL CHEMICAL 2/	AREA APPLIED 3/		APPLICATIONS		RATE PER APPLICATION		RATE PER CROP YEAR		TOTAL APPLIED	
	1998	2000	1998	2000	1998	2000	1998	2000	1998	2000
	Percent		Number		Pounds Per Acre				1,000 Pounds	
Herbicides										
2, 4-D	7	4	1.0	1.4	0.39	0.47	0.41	0.68	11.8	11.4
Alachlor	19	19	1.0	1.0	2.14	2.08	2.27	2.17	189.3	173.9
Atrazine	51	63	1.1	1.0	0.78	0.71	0.89	0.75	199.7	198.8
Bentazon	24	23	1.1	1.0	0.60	0.52	0.66	0.53	69.5	51.4
Carfentrazone-ethyl	-	2	-	1.0	-	0.008	-	0.008	-	0.1
Cyanazine	15	9	1.0	1.0	1.56	0.96	1.67	0.98	110.1	35.9
Dimethenamid	17	17	1.0	1.0	1.19	1.25	1.21	1.28	92.1	91.0
EPTC	7	5	1.0	1.0	3.73	3.64	3.80	3.71	111.3	71.1
Fluroxypyr	-	2	-	1.0	-	0.15	-	0.15	-	1.2
Glyphosate	8	9	1.1	1.1	0.66	0.56	0.74	0.67	26.9	25.2
MCPA	-	*	-	1.0	-	0.30	-	0.30	-	0.4
Metolachlor	37	28	1.0	1.0	1.96	1.69	2.08	1.70	338.5	203.0
Nicosulfuron	9	8	1.0	1.0	0.03	0.03	0.03	0.03	1.3	1.1
Paraquat	1	*	1.1	1.0	0.32	0.43	0.36	0.46	1.3	1.5
Pendimethalin	12	11	1.0	1.0	0.82	0.76	0.85	0.77	46.4	34.4
S-Metolachlor	-	6	-	1.0	-	1.35	-	1.38	-	36.3
Insecticides										
Bifenthrin	-	36	-	2.5	-	0.04	-	0.09	-	14.0
Carbaryl	1	-	1.4	-	1.02	-	1.52	-	4.4	-
Carbofuran	2	1	1.0	1.0	0.86	0.93	0.86	0.93	6.2	4.1
Chlorpyrifos	6	5	1.0	1.0	1.22	1.11	1.33	1.20	35.2	25.2
Cyfluthrin	4	3	1.6	1.6	0.03	0.04	0.04	0.06	0.7	0.7
Esfenvalerate	2	*	1.0	1.0	0.04	0.02	0.04	0.02	0.3	**
Ethoprop	2	2	1.0	1.0	1.94	1.60	1.94	1.61	16.8	10.3
Fonofos	*	-	1.0	-	1.03	-	1.03	-	1.3	-
Lambda-cyhalothrin	32	26	2.0	2.2	0.02	0.02	0.05	0.05	6.8	6.0
Methyl parathion	6	2	1.6	1.2	0.33	0.48	0.54	0.59	14.2	5.5
Permethrin	43	15	2.4	1.9	0.15	0.15	0.38	0.30	71.7	19.6
Tebupirimphos	1	*	1.0	1.0	0.14	0.14	0.14	0.14	0.4	0.2
Tefluthrin	4	2	1.0	1.0	0.08	0.11	0.08	0.11	1.4	0.7
Terbufos	1	2	1.0	1.0	1.18	1.06	1.18	1.07	5.7	6.8
Fungicides										
Propiconazole	10	19	1.6	1.8	0.10	0.11	0.16	0.20	7.4	16.0
Other Chemicals										
Aminopyridine	4	3	1.2	1.8	0.00	-	0.00	-	**	-

* Applied on less than one percent of acres. ** Total applied is less than 50 pounds.

1/ Planted acres in 1998 for the 6 major states were 416,600 acres and planted acres in 2000 for the 7 major states were 419,800 acres. States included in 1998 were IL, MN, NY, OR, WA, and WI. States included in 2000 were IL, MN, NY, OR, PA, WA & WI.

2/ Insufficient reports to publish data for the following agricultural chemicals: 1998: Herbicides: Acetochlor, Ametryn, Bromoxynil, Butylate, Clopyralid, Dicamba, Pot. salt, Linuron, MCPA, Sethoxydim, Simazine, Trifluralin. Insecticides: Bt (Bacillus thur.), Cypermethrin, Malathion, Methomyl, Mevinphos, Oxydemeton-methyl, Phorate. Other Chemicals: Metaldehyde. 2000: Herbicides: Acetic acid, Ametryn, Butylate, Halosulfuron, Imazethapyr, Pyridate, Simazine, Trifluralin. Insecticides: Azadirachtin, Methomyl, Oxydemeton-methyl, Petroleum distillate, Spinosad. Fungicides: Mancozeb, Vinclozolin. Other Chemicals: Metaldehyde.

3/ Refers to acres receiving one or more applications of a specific agricultural chemical. Note: Data may not multiple across due to rounding.